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      UNITED STATES DISTRICT COURT
      SOUTHERN DISTRICT OF NEW YORK
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     KEWAZINGA CORP.,
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                     Plaintiff,
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                                              20 Civ. 1106 (LGS)
                 V.
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      GOOGLE LLC,
                                              Remote Oral Argument
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                     Defendants.
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                                              New York, N.Y.
                                              February 16, 2021
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                                              10:40 a.m.
     Before:
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                         HON. LORNA G. SCHOFIELD,
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                                              District Judge
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                                APPEARANCES
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           JOHN MICHAEL DESMARAIS
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          EMILY CHEN
          KENNETH L. STEIN
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     Also Present:
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      Jim Sherwood, Google representative
     Michael Skrzypek, defense trial tech
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1 THE COURT: Good morning. 2 MR. MODI: Good morning, your Honor. 3 MR. DiBERNARDO: Good morning, your Honor. THE DEPUTY CLERK: Good morning. We're here in 20 4 5 Civ. 1106, Kewazinga v. Google LLC. The parties' appearances have been noted for the record. 6 7 Before we begin, I'd like to remind the parties and anyone else listening that recording or rebroadcasting of this 8 9 is prohibited. Violation of this prohibition may result in 10 sanctions. We're here before the Honorable Lorna G. Schofield. 11 12 THE COURT: So welcome, everybody. It's strange to be 13 here in this remote way, but I trust we can proceed and we 14 won't have anything funny or strange. I'm glad we can start a 15 little bit later. I noticed that at least some people were in California. 16 17 So I guess have you all talked to Mr. Street about how 18 much time you want to reserve? MR. MODI: Your Honor, I believe what the parties have 19 20 discussed that each side would present for an hour. Certainly, 21 with the Court's permission, perhaps the parties could reserve

some period of time for rebuttal, although I don't think counsel discussed specifically what amount of time.

THE COURT: As I understood it, Mr. DiBernardo was going to go first. Is that right? I guess my question is do

you want to reserve some time? Do you want Mr. Street to prompt you or you just watch the clock? How do you want to proceed?

MR. DiBERNARDO: Appreciate that, your Honor. I think we can watch the clock on our end, if that's OK.

THE COURT: All right. So Mr. Street will keep track as well, and you may begin.

MR. DiBERNARDO: Thank you, your Honor. I will apologize for the mask. We're actually in a conference room with colleagues. If you're having difficulty hearing me, please say so, and we may rearrange and I'll try to remove the mask.

THE COURT: OK. I can hear you fine. I obviously can't read your lips, but we'll see how it goes.

MR. DiBERNARDO: Thank you.

With that, your Honor, I will share my screen to walk through the presentation.

THE COURT: OK.

MR. DiBERNARDO: Are you able to see that, your Honor?

THE COURT: I can see it, yes.

MR. DiBERNARDO: We'll begin today, your Honor, with the array of cameras limitation, as an overview why should the Court adopt Kewazinga's proposed constructions? On the Kewazinga side, the proposed constructions are supported by the intrinsic evidence, supported by competent expert testimony,

and absolutely consistent with the Microsoft Court's rationale.

Google responds with mischaracterizations of the patents and the intrinsic record with no expert testimony, and in fact mischaracterizes Kewazinga's expert Dr. Lubin's credentials and mischaracterizes the *Microsoft* Court's rationale.

Just first a word on the law that's applicable here. As a baseline, courts give the terms their ordinary and customary meaning in the particular field. That is the baseline, an objective baseline. Patentees are free and should get the full scope of the proposed term's ordinary meaning unless one of two things: (1) The patentee explicitly redefines the term or (2) disavows the full scope. Neither of which is the case here with the terms at issue. In fact, mere criticism of a particular embodiment or an alternative is not a disavowal or an explicit redefinition of a term, and any disavowal has to be clear and unmistakable. And, again, there is none here.

Also important to note, your Honor, claims are not limited to described embodiments. The federal circuit has repeatedly cautioned against that. The specification need not describe every embodiment, and claims should not be confined to disclosed embodiments even when there's only a single embodiment that's disclosed.

THE COURT: I had a question about that. In

construing array of cameras, Judge Woods relied on the various embodiments in the patent and noted that they all consistently depicted multiple cameras in fixed locations relative to each other, and that seemed to be very much at the center of his analysis. And I'm genuinely asking for clarification here. It's not a Socratic question. But there seems to be some tension between, on the one hand, saying the claims must be read in light of the specifications, but on the other hand, the claims are not to be limited by an embodiment or features shown in an embodiment absent the patentee's clear intention. Could you speak to that.

MR. DiBERNARDO: Yes, your Honor. The tension, if one exists, is resolved I think in this case by the nature of the disclosure in the Kewazinga patents where, in the context of the array, it is given a broad description. Throughout the specification, it is emphasized that there's a breadth to what constitutes an array, and that emphasizes that no one embodiment should be limiting to the term.

Again, starting with the ordinary meaning, there has to be either a redefinition of the term or a clear disavowal.

Neither of which is present here. And, again, the whole spec in discussing the array emphasizes the breadth of the disclosure and the flexibility and the different forms that the array can take. And I will get into those disclosures in the presentation, your Honor.

THE COURT: OK.

MR. DiBERNARDO: So just some background on the asserted patents. They're directed to not a specific array, not any particular structure. They're directed to telepresence systems and methods that enable multiple users to smoothly navigate imagery along a path through a remote environment simultaneously and independently of one another. In the disclosed environment, there are at least three aspects that allow this to happen: image capture, storage, and user navigation. I'll briefly go through that by way of background and go into some of the specifications as I mentioned.

Let's start with the image capture and storage, your Honor. At the top of the picture, and this is Figure 1 which is in all of the patents, array 10 shown in red is comprised of multiple sub-arrays, as Dr. Lubin calls them, rail arrays 12, and each rail array includes multiple cameras 14. The images are captured and sent via local area hubs shown in blue to the server, and the server causes the images to be stored in an electronic storage device shown in purple. So the function here is the array is there to capture the images so that they can be stored for later retrieval and navigation. I will say the implication of the local area hubs and why we included them there is that the arrays, the cameras, the rail arrays, don't have to be connected to one another. They can be wire —

THE COURT: What do you mean?

MR. DiBERNARDO: They can comprise -- the array of cameras 10 can comprise discrete sections, each section of which is fed into a local area hub for the images to be stored. The camera array 10 does not have to be a unitary structure.

THE COURT: OK.

MR. DiBERNARDO: That's generally the image capture and storage.

Now, on the user navigation side, having stored the imagery in the electronic storage device, users using a various type of computing device can send navigation commands, user inputs, to the server, and based on those user inputs, the server in turn provides the imagery from those storage nodes to the user. And in providing those, that imagery, the server and/or the user interface devices can process the imagery, for example, to smooth the navigation.

A bit more on the navigation, your Honor. Navigation here is not physical, it's in a sense virtual. It's as the patents describe, floating between a multiplicity of camera outputs, through electronic switches. That's movement through the array. It's selecting which images from storage are to be retrieved and viewed.

THE COURT: Just so we're clear -- and I heard you just now say it -- what we're talking about are captured images or stored images, not live camera images?

MR. DiBERNARDO: Relevant here, although the patents

describe alternate embodiments where it could be live, here we're talking, yes, primarily about the stored imagery.

THE COURT: OK.

MR. DiBERNARDO: So that's the navigation of the patents. It is not providing a user with remote control to physically move a robotic camera. It's not giving a user that remote control. And the patents discuss that and say if you were to do that, that immediately limits the number of viewers that could simultaneously control their own course. Only one person is controlling that robotic camera. That's not the invention. That's the type of moving, physically moving of cameras, that was criticized in the patents.

Another note on the navigation. Navigation also is not based on knowing the precise location of the cameras, where the images were taken, but based on relative ordering of where the images were to — and that's emphasized in Figure 5, which again is in each of the patents, although we cite only to the '325 patent here, your Honor. You can see users can choose to move, for example, to the right in the environment. In which case, in response to receiving that input, the server, the system, would increment the camera node along the x-axis. So moving from the first camera, say, X0, receiving an input to move to the right, moving to X1, the next camera. There's no requirement that the user or the system know the precise location of the cameras. It's that relative ordering, moving

to the right, increment the address along the X axis; moving to the left, decrement the node address. So that is navigation.

Now, with that background, why should the Court adopt Kewazinga's construction? Again, it's consistent with the intrinsic evidence, it's supported by expert testimony, and it's consistent with the *Microsoft* Court's ruling. Google's proposed construction has ambiguities that were not addressed in the *Microsoft* case or in the Court's opinion, and those ambiguities are actually highlighted by Google's attempts to read in narrowing limitations that are not required by that specific language. We'll get into that.

So, again, array of cameras, they're there to capture the images that are stored for the purposes of navigation.

What do we know about the array? It has full breadth. It can take many different forms to achieve that purpose. It's not limited to a specific structure or a single structure. The array of cameras is not limited to fixed or stationary cameras. Cameras can be moved. An array of cameras can comprise multiple other array of cameras.

THE COURT: So let's talk about that a little bit because Judge Woods -- and I should just tell you. I'm not necessarily wedded to what he has concluded -- but Judge Woods' conclusion and Google's position is that the cameras are fixed relative to each other. The array isn't fixed, but that the cameras relative to each other are fixed. I guess it wasn't

entirely clear to me that you really disputed that.

MR. DiBERNARDO: Kewazinga's proposed construction that the camera configuration can be created over time by moving cameras is consistent with that. Kewazinga's not putting forth a proposed construction where the images and the positions are not fixed. We do believe there are serious ambiguities with that language. Again, that was language that the *Microsoft* Court adopted without it being proposed by either party.

THE COURT: I understand that. I guess what I'm trying to understand is what your position is relative to that because I just heard you say that it wasn't necessarily inconsistent. So I think what you're saying, but correct me if I'm wrong, I think you're saying that the cameras are situated in a way that is fixed relative to the other cameras, and therefore the images are fixed in a particular configuration, but you're suggesting that you can move the cameras. For example, if you only have two cameras, you can use the camera in — one camera in position one and position two and then take that first camera and move it to position three but maintaining a configuration that will allow you to have overlapping images so it seems as though you are walking through the environment or moving through the environment.

MR. DiBERNARDO: Your Honor, we largely agree with that, that, yes, Figure 11 and 12, that embodiment really

highlights this, that cameras can be moved to capture the images and perform the array. And once the images are captured and the array is formed, those relationships between the captured images do not change. There is a known relationship.

Much of the issue, as is clear in our papers, is what ambiguities and other limitations Google has attempted to read into that notion of a known relationship. For example, they're quite clear that they read into that limitation that there has to be a predetermined relationship. There's no requirement for a precise relationship or predetermined relationship. That again is supported by Figure 11, which we can get into, where cameras can be situated basically in real time. The creator of the system can decide after cameras are placed whether or not to add more without having it predetermined.

THE COURT: So here's a question for that, and that is, I go back to the idea of just in plain English what's an array? It's not that common a word, but the way it comes up commonly that I think is similar here is we talk about an array of solar panels. What we mean when we talk about an array in that sense, I think, just means a collection of things that are organized in some way together.

So if your array just means that you have a collection of things, why isn't it so that you need to know where the various things are in order to capture your images in the way that's contemplated by the patents?

MR. DiBERNARDO: First, your Honor, in some claims there is other language that adds context for the array, but as we note from the *Phillips* case, and consistent with what the *Microsoft* Court did, that other language in the claim is not read into the term. If it exists, it exists.

THE COURT: Right.

MR. DiBERNARDO: So one claim, for example, refers to progressively different locations, but that is separate language, not to be read into the definition of array.

THE COURT: Right. OK. I'm sorry. I understand that is your answer, so you can go ahead.

MR. DiBERNARDO: OK. Just one more point, your Honor, to emphasize. Once the images are captured, then the relative relationship between the images is known. It's a question of not having to have it predetermined or to have a precise location.

THE COURT: But here's a question. Why do we care about that question? Because that doesn't seem to me, this idea of predetermined, to be inherent in either your definition or in Google's definition. So why do we care?

MR. DiBERNARDO: That really is in large part the argument because it's "fixed in relation." Because it raises ambiguities like "fixed" confusing the jury. Does it mean the cameras are stationary? Are the arrays stationary?

THE COURT: It says "fixed in relation to each other,"

and that doesn't seem -- and Judge Woods' opinion makes clear that he is rejecting the idea that they are physically fixed in some location, and I think the words that Google's suggesting don't in this case suggest that they're fixed in one location, just that the cameras are fixed in relation to each other and also that, therefore, the images that come from those cameras are fixed in relation to each other.

MR. DiBERNARDO: The issue, your Honor, is highlighted by Google's explicit attempt to read in this notion of predetermined into those words. That is certainly an issue that we take. Those words, "fixed in relation," do not require predetermined relationship, yet --

THE COURT: Right. I mean, in theory I could adopt their definition and reject the idea that it's predetermined.

MR. DiBERNARDO: Yes. I think there are perhaps better phraseologies that wouldn't raise potential ambiguities like known relationship and the fact that that known relationship between the images occurs after the images are captured, so that's not predetermined.

But, yes, as I said at the outset, Kewazinga's proposed construction is not inconsistent; it's absolutely consistent with *Microsoft's* rationale regarding "fixed in relation." The Court's rationale there was that once an array is formed, the cameras are fixed in relation. That moving a camera would change the geometric relationship of cameras

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within that array and form a new array. In other words --THE COURT: Let me just interrupt you. I know that that's what it says, and actually that doesn't make that much sense to me, and maybe Google will want to address that. But I don't necessarily accept that conclusion. MR. DiBERNARDO: Perhaps we should take a look at that language in more detail, if I may. I do have slides on that, your Honor. THE COURT: Sure. I quess slides are great until you start having a discussion, but anyway, go ahead. MR. DiBERNARDO: Actually --THE COURT: So I understand your position. Your position is Figure 11, you have these concentric circles. call it an array and sub-arrays. "Sub-arrays" isn't included in the patent. Judge Woods says anytime you are moving to another circle, it's a different array. I don't get hung up on whether it's a different array or not. Perhaps I should since

MR. DiBERNARDO: So if I could start with Figure 11 to make sure we're on the same page because Figure 11 and Figure 12, that embodiment, provides the context.

THE COURT: So this is not Figure 11?

we're defining the term "array," but anyway, go ahead.

MR. DiBERNARDO: No, it's not. Apologize, your Honor.

THE COURT: There it is.

MR. DiBERNARDO: Figure 11. Figure 11, it refers back

to Figure 1 which is in all the patents. Let's just talk quickly about the components.

Again, you have the array of cameras 10, the overall array. In Figure 1, that comprises multiple rail arrays, each of which carries cameras 14. In Figure 11 the nomenclature is the same. Array of cameras 10 is a collection of cylindrical arrays -- again, it's a top-down view here -- a collection of cylindrical arrays 12, 12-1, 12-2, 12-3, and so on, each of which carries cameras. Here, the array of cameras 10 does include multiple other arrays, rail arrays in Figure 1 and the cylinders 12 in Figure 11. That's the reference to sub-arrays. It's just a way of explaining it, certainly not a convoluted theory the way Google characterizes it. It's explicit in each of these embodiments.

So Figure 11, what's shown here? Figure 11 is a time-lapse view. These different cylinders we're seeing, they don't all exist at the same point in time, and that's made clear in the discussion in patents, including Figure 12.

How does it operate? First, the first cylinder, 12-1, is put into place, images are captured, and then that cylinder is removed and the creator decides, does she want another cylinder? So 12-1, that cylinder is removed, 12-2 is put in place, images are captured, and then 12-2 can be removed and a new cylinder, 12-3, can be put into place. These cylinders, the collection, that's array 10. Notably, by removing cylinder

12-1 and cylinder 12-2 and putting in cylinder 12-3, putting in cylinder 12-3 does not change the relationship between the cameras and the output that had already been captured by the earlier cylinders 12-1 and 12-2. Cameras can move without changing the relationship among the images. So, again, it's the collection of all of those cylinders, those sub-arrays, 12-1 through 12-n, that comprise the array of cameras 10.

So what do we know from this? Cameras can be moved into position to capture the images at different locations in different times. Cameras in the array don't need to be physically connected. Each of those cylinders are not physically connected. They are comprised — the camera array is comprised by multiple sub—arrays. Not all of the cameras in the array need to be positioned at the same time. The locations of cameras in the array do not need to be known prior to capture. Again, the creator is making that determination as to whether or not to put new cylinders in place and capture additional images at the time, after each cylinder is placed. That's step 1250 in Figure 12 and described in the '325 patent, on 19, line 58, I believe.

Again, there is no requirement that there be exact or uniform distances. Notably, again, the relationships between the cameras in the earlier part of the array are not changed by moving cameras to form the later part array, to capture the images at the later part.

The Figure 11 and 12 embodiment clearly show that an array of cameras can be created over time by moving cameras.

And I will say Google misrepresents the patents in this regard.

They criticize --

THE COURT: Misrepresents what? I'm sorry. I missed a word.

MR. DiBERNARDO: The patents, your Honor.

THE COURT: OK.

MR. DiBERNARDO: They criticize Dr. Lubin unfairly, and they mischaracterize the Court's order, all to disparage Figure 11. Why? Because Figure 11 is remarkably similar to the accused products here. In Google Street View, they have multiple cameras mounted atop a car that captures images at discrete locations along a street. First location images are captured and stored, a second location images are captured and stored, and third location, and so on. Those different locations are sub-arrays, just as in Figure 11, and the collection is an array of cameras formed over time. Also, just as in Figure 11, a user can navigate around a given ring and those images can be processed, so too can a user navigate around images at a given location in Street View —

THE COURT: So could I ask a question? So why is it so important to you to characterize these as all part of the same array? Why does it matter whether we think of everything in red as a single array or whether we view each circle as an

array?

MR. DiBERNARDO: To the extent some claims refer to progressively different locations, these different locations along the street are those progressively different locations through the environment. So that is one reason.

THE COURT: OK.

MR. DiBERNARDO: Again, this collection of images are all that are provided to the user to be navigated. And again, users can not only navigate around a cylinder in Figure 11 and around a ring at a given location in Street View, but users can navigate from one ring in Figure 11 to another ring, and that navigation can include processing to smooth the transition.

Just as in Google Street View, users can navigate from one location to another and have processing to smooth that. The two are very, very similar.

So what's Google's explanation? Actually, your Honor, if I may, since you asked the question, I'm going to jump ahead to the Court's discussion on this.

So what does it mean to move a camera and change the geometric relationship? That's what the Court was focused on. The cameras in an array having fixed fields of view, that's what's saved, stored, that's what's navigated. If you move a camera, for example here, camera X3, it creates a different path. It changes the geometric relationship between them, and Judge Woods believed that created a new array. That discussion

does not go to whether array of cameras 10 in Figure 11 encompasses the multiple cylinders. It is a very different issue, and Google mischaracterizations that. So let's look at what the Court said.

The Microsoft Court says that the cameras are deployed to create the necessary fields of view. Those fields of view, as we discussed, that's what's navigated. The images are saved and available for navigation. It's not about moving cameras to navigate, it's about navigating those stored images.

Accordingly, a POSITA would understand that cameras that did not have fixed fields of view relative to the other cameras in the array would be contrary to the teachings. Again, navigation, your Honor, is not is changing view of camera, like remote control; it's not providing a user remote control of a moving camera. That's what Judge Woods was referring to here. Cameras within an array have the fixed field of view. Those are the paths that can be navigated.

However, moving cameras -- we'll continue. Moving cameras within an existing array, and that's the key part, within an existing array like the prior figure, that would change the geometric relationship between cameras in that array, resulting in a new array. That does not go to the question of whether you can move cameras to form the array. That's clearly supported by Figure 11. That is not what Judge Woods is talking about here. And again, in Figure 11 cameras

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are moving to create the array, and once the images are created, the relationship between them is absolutely fixed. There is a known relative relationship between those images. Again, creating the navigation path and creating the array is different from changing the navigation. That's what Judge Woods was getting at.

Another section of Judge Woods' decision, and here he's talking about each array, each cylinder, 12-1, 12-2. Microsoft is not addressing whether the array of cameras 10 in Figure 11 can be created over time. He's looking at individual cylinder arrays. Notably, the text highlighted in blue, your Honor, was admitted by Google in their brief. They quote the yellow section but not the blue, and the blue section really highlights what the Court was getting at. The issue that the Court was getting at here was whether, even if the same cameras were reused from array 12-1 to 12-2, would that be a different array? That's what the Court was getting at. That provides the context. And the Court said, well, the geometric relationship between the cameras in 12-1 and camera 12-2 are different, so a POSITA would understand them to be different arrays even if the same cameras were repurchased. That does not go to whether or not the collection of cylinder arrays in Figure 11 comprised the overall array of cameras 10. look at the footnote that Google omitted in their quotation, the judge acknowledges this. The one statement in this

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section that really goes to Figure 11: A POSITA would not understand that an array of cameras must comprise a single structure. Absolutely not, it can comprise multiple structures. Array of cameras 10 can comprise cylinder arrays 12-1 through 12-n.

One other point of mischaracterization here. Again, Google misrepresents the language in the asserted patents regarding moving vehicles. Google says the patents criticize creating an array over time. Absolutely not. The patents criticized giving users remote control over moving vehicles, not creating an array over time, and the PTAB in rejecting a challenge, Microsoft's IPR to the patent, absolutely agreed. The 2006 application, which includes the language quoted here from the '325 patent, criticized moving cameras for requiring viewer control of the camera system's movement for navigation, remote control, that's what was criticized. There was not a broad exclusion of moving cameras, certainly not creating cameras over time. Again, we know from the law that construction that reads out an embodiment is rarely, if ever, correct. The criticism was much more limited, your Honor.

THE COURT: OK.

rebuttal on the array issue.

MR. MODI: Thank you, your Honor. First of all, let me thank you, your Honor, for setting the hearing at 10:30. I

With that, your Honor, I think I will reserve time for

am one of those folks that are out in California, so I appreciate the extra half-hour. So thank you.

Your Honor, here's the fundamental dispute. I'll just tee it up, and then I do have a slide presentation as well that will walk through this. There is not a single description in these patents about creating an array over time with moving cameras. That's an additional concept that Kewazinga is trying to get with its construction. It's not within the ordinary meaning of array. And as we'll see from the evidence, an array — what they were really going for is a set of cameras that are situated in an environment, in a precise arrangement, and then which are used to capture images and that can be navigated through. Figure 11 does not describe a single array that is created over time. That's what Judge Woods found and that's what the text of the patents say.

So I'll go through that in great detail because every one of the arguments that Kewazinga's counsel just raised, they made the exact same arguments to Judge Woods, and I'll walk through every single instance of that. But that's the bottom line, there is no disclosure, and the claims don't contemplate or cover this concept of an array that is created over time by moving cameras.

With that --

THE COURT: So can I just ask this question: So what you're saying, then, is that the dispute in the construction is

whether the array can be created over time, and therefore in construing the term, that disputed meaning has to be addressed? Is that why we're talking about this? Because it's not — you're right in the sense that there's nothing in the patents that really talk about that. On the other hand, there's nothing in the patents that necessarily precludes it, I think. But why do we have to resolve that now? Is that the point of claim construction, because that's the issue you're disputing?

MR. MODI: That is part of it, yes, your Honor.

THE COURT: OK.

MR. MODI: To resolve this notion that Kewazinga argues that it is being consistent with the Microsoft Court's construction. Well, if it was being consistent with the Microsoft Court's construction, of course, it would propose the Microsoft Court's construction. It has completely changed the words of the Microsoft Court's construction and, as we'll see, in a way that's meant to capture exactly the concepts and the argument that the Microsoft Court rejected.

So, Mr. Skrzypek, can we go to slide 2, please.

As your Honor is aware, there are two claim terms at issue here, and just on the second slide, for the Court's reference later on, we've indicated which slides are for which terms.

Next slide, please.

Your Honor touched a little bit on this in some of the

questioning. There is a little bit of a tension in the federal
circuit case law on what we're supposed to do with claim
construction. The plaintiffs' counsel recited some cases about
how there's got to be a clear disavowal. That was the Thorner
case in 2012. The federal circuit's been doing claim
construction for I think almost 25 or 30 years, so you can find
cases that say pretty much anything. But I think the common
thread between them, the thrust of them, is we look at claim
construction with an eye towards what the patentees actually
invented, and to do that you look at not just the plain
language you look at the specifications, you look at the
disclosure as a whole. Were that not the case, of course, we
could go to a dictionary on disputed terms and resolve the
dispute there, but that's not how it works. And in fact, there
are a couple of cases that really hammer this home, cases that
actually were decided after the Thorner case that plaintiff
counsel relies on. The first of which is the UltimatePointer
case which we've cited on slide 3. When a patentee goes out of
its way to actually denigrate or speak negatively of prior art
technologies, that's a pretty strong indication that they were
not intending to capture those criticized technologies within
the scope of the array claims, and we see this with array and
specifically this "moving over time" argument.

The second was cited in our papers. It's the *Eon* case, 815 F.3d 1314. And really there -- again, this is a 2016

case, so it's after the *Thorner* case, and what the federal circuit said in *Eon* is a party's not entitled to claim construction divorced from the written description in the prosecution history. The only meaning that matters in claim construction is the meaning in the context of the patent. And it actually reversed an order where the patentee was trying to get a definition of a term that maybe in the abstract made sense but in light of the specification made no sense at all.

So this comes up in a number of the arguments, but to your Honor's point, there is some tension. It is a balancing act, but we've got to look at what the inventors were actually trying to invent.

So if we go, Mr. Skrzypek, to slide 7, please.

Just as some additional background, Kewazinga in its patents, before it actually starts to describe the invention, talks about what was in the prior art, and they do so by -Mr. DiBernardo -- sorry, actually, Mr. Skrzypek, can we go back to slide 6, please.

What these patentees were trying to invent was a telepresence system for music concerts, museums, you know, this ability to simulate a viewer's actual presence in a venue, preferably in real time. So, actually, a preferred version of this invention, a preferred embodiment, is actually having these cameras situated around, say, Madison Square Garden and viewing a concert, for example, in real time. That's important

because one of these concepts that we see Kewazinga trying to bring in is this idea that an array can be formed over time.

Well, an array that's formed over time requires moving a camera from here to here to here and necessarily cannot convey or allow somebody to navigate a venue in real time, right? The camera as it moves time has passed. The event is no longer the same event it was.

THE COURT: I thought, though, that the real time was something that was preferred and not essential and that Figure 11 does contemplate moving cameras, although it calls each concentric circle an array and not a sub-array.

MR. MODI: Yeah, that's right, your Honor. I'm not suggesting that this invention only covers live events. I'm laying the context for what the inventors were trying to solve and what did they have in their heads. Google, of course, disputes that Figure 11 depicts this notion of creating a single array over time, and we'll go into that. That's partly because the patent itself talks about Figure 11 as describing multiple arrays, and it's the intrinsic evidence that is the most persuasive. But to your Honor's question, I'm simply setting the context for what the preferred embodiment of this invention is.

Let's go to slide 9, please -- excuse me, slide 10, Mr. Skrzypek.

So after the patentees go through what the prior art

is and what some of the downsides are -- I've got actually in some of the prior slides this notion that there are downsides to these systems with moving cameras or systems with 360 cameras -- what these inventors was going for was something better, something improved. And the solution was to situate an array of cameras, each of which has an associated view of the environment, and in certain embodiments they're on rails. They're locked in fixed relation to each other. So they're situated around, again, for example, a ring, a bowl around Madison Square Garden, Section 200, and from each angle you get a slightly different perspective of the Knicks game or the concert. And using that, using the images that are captured from each of those cameras, a user can navigate through those different angles. It simulates actual in-environment transit as the patents say.

And, again, next slide, please.

What the patents tell us is that that is different from having to move a camera around. We're going to use a multiplicity of positioned cameras around the environment and set the stage for the image capture. In fact, array 10 -- and this is on the bottom of slide 11 -- it has several advantages. Because it uses this series of cameras, no individual camera or the entire array needs to be moved. It's already there. It is strategically placed in the environment. It's something that exists.

With that, your Honor, I'll go specifically to the array of cameras.

Mr. Skrzypek, let's go to slide 15 and 16, please.

And on slide 15 we have the -- how the claim terms were cited. Array of cameras appears in the '226 patent and the '325 patent. The '226 -- this will come up a little later, but the '226 was actually the first in these series of patents. The application for it was filed in April of 1999, I believe, and every claim in that patent has this array of cameras. The '325 came six months later. The application was filed half a year later, and it was there the first time where this Figure 11 embodiment was actually included. So array of cameras is a concept that the patentees had in their minds and actually claimed in every claim of the '226 patent without reference to Figure 11 at all. This Figure 11 embodiment doesn't even exist in the '226 patent.

Next slide, please.

Google's proposed construction is the same as the Microsoft Court's construction, a set of multiple cameras each fixed in relation to each other. Kewazinga's construction, while they purport to argue that it is consistent with the Microsoft Court's construction is actually quite different from it in the words, as is clear just from the words themselves. But if we look at the next slide, it's worse than that. It's actually a rehash of the exact construction that Kewazinga

proposed in the Microsoft case.

THE COURT: Just to go back to a question that I asked before, if you look simply at the words of your proposed construction and Judge Woods' construction, it doesn't seem necessarily inconsistent with Kewazinga's proposed construction.

MR. MODI: I think that's why it's important to understand why Kewazinga is proposing that construction and how it compares to the exact arguments that they made to the Microsoft Court because perhaps in the abstract maybe there is no inconsistency, but I think what becomes very clear — and I'm about to go through this — is each of these concepts, what they're trying to build into the claim term, are concepts that Judge Woods specifically rejected in coming up with the construction for this term.

So just looking at what Kewazinga proposed in the Microsoft case, movable cameras and re-using a camera in multiple locations, that's how — that is a concept that Kewazinga argued in the Microsoft case could be included within an array. Now, in this case they argue, well, what if we move cameras over time? We made this point in the papers. Having a camera and then moving it to reuse it at a slightly different location is the same thing as what they're trying to argue now. What they're saying, the movement from point A to point B, if you look at it as a whole, is creating the array. It's the

same concept. They're using slightly different words, but it's the exact same concept that they're trying recapture, concepts that Judge Woods rejected in the *Microsoft* case.

So what I'd like to do first is go through why Judge Woods got it right, why this construction makes sense.

If we could go to slide 18, please, Mr. Skrzypek.

There's, I guess, two clauses to the *Microsoft* Court construction. The first is a set of multiple cameras, and I'll focus on that first, and then I'll talk about "each fixed in relation to each other." I don't think there's actually much of a dispute as to the first clause, "a set of multiple cameras."

Next slide and the next slide after that.

When you think about, your Honor brought up this, what is just sort of the ordinary meaning of array, an array is a multiple of something. It's a grouping, and that's actually from the dictionary definition, a dictionary that Kewazinga cited in its papers. It's a collection or a grouping of something in some sort of organized way. And, I mean, if you just think about it, your Honor, I'm holding up a pen. If I've got a pen on the left side of my screen -- I suppose this might be right to left -- and then I move it five inches and then I move it five more inches, nobody could call that an array of pens. I've got one pen, right? So I don't actually think there's any dispute that an array of cameras has to be a set of

multiple cameras.

Next slide, please.

In fact, this is actually perfectly consistent with the claim language which talks about the array including a series of cameras.

Next slide, please.

This is a point that Judge Woods made in his order. The specification is fully consistent with that. Every single embodiment of the array of cameras that's disclosed in these patents has an array with a set of multiple cameras. We're not talking about one camera that goes from point A to point B to point C and thinking of that as the array. It's a thing. It's a structure that includes multiple cameras at a given point in time, right? So that's --

THE COURT: So it seemed to me that what Kewazinga is saying -- and maybe I have it wrong -- but it seemed to me that what they were talking about was a grouping of images, but the patent talks about a grouping or an array of cameras. So even though what they're saying about images may be true, it's not fully consistent with the patent because we're talking about multiple cameras.

But then the next thing I wondered about is it seems to me they concede we're talking about multiple cameras. So what if you have two cameras and you just keep using the same two but you move them? For example, in 2e if you're using --

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you have two cameras, and so you take your image with the first
one and then the second one and then you move the first one to
the third position and then you move the second one to the
fourth position, why isn't that an array of cameras?

I think this actually goes to the next part MR. MODI: of the construction, which is "fixed in relation to each other." The short answer is, your Honor, one of the things that Kewazinga's trying to do here is obviate the need for any sort of order or arrangement in the cameras, which is of course what is required by an array as we just saw in the dictionary definition. It's some kind of regular order or arrangement. What they are going to argue, in fact what they're arguing now, is it doesn't matter what the relationship is between the cameras is when you're thinking about the array as long as you can determine that relationship after the fact. So it doesn't -- and if you just sort of take that argument to its logical conclusion, any two cameras have some physical relationship between them that you can determine after the I mean, you can always measure the distance of two fact. cameras where they take an image after they've already taken the image. Abstracting it out even further, two cameras exist on the planet earth, and therefore you can determine post hoc, after the fact, the relationship between them. That's not at all what these patents are about, and that's certainly not what is claimed here.

What's claimed here is not the idea of a collection of cameras that -- for which you can determine the relationship beforehand. What's important here and that's claimed here is an arrangement of cameras that is organized and situated in a particular way at a given time where you know the relationship between one another predetermined and then from there you capture the images and navigate to them, and --

THE COURT: Where does it say that?

MR. MODI: I'll go right to that, your Honor. Let's see. Let me actually -- if I may, your Honor, actually, the inventor said it is the first thing, and I'll show where the patent says it and I'll show where the Microsoft Court has made the same determination.

I do want to -- maybe, Mr. Skrzypek, you can go to slide 24, please.

So the argument here is Kewazinga's argument is that its construction is perfectly consistent. We just didn't have an opportunity to explain alleged ambiguities in "fixed in relation to each other."

Next slide, please.

In fact, Mr. DiBernardo, who argued claim construction in the *Microsoft* case, made the assertion whether the cameras are fixed is immaterial to the invention and not required by the phrase "array of cameras." So this idea of whether cameras need to have a relationship to one another in the array with

respect to one another was directly in front of the Court, in front of the *Microsoft* Court. And this gets to your Honor's question right here.

Next slide.

At the claim construction hearing in attendance was David Worley. David Worley is one of the inventors of the patents-in-suit, and Mr. Worley actually stood up and confirmed, he said the array itself does not have to be fixed; the array can be moving. And that's consistent with the descriptions in the patents about how an array can be on a frame with wheels and you can move the frame in place. But what Mr. Worley confirmed in court was that what has to be fixed are the cameras in relation to each other. So here we have the inventors of these patents telling us that what you've got to know, what you've got to at least --

THE COURT: That's not really intrinsic evidence, right? I mean, that's -- I understand he's the inventor, but to the extent it doesn't say that in the patent, I'm not sure what weight to put on that.

MR. MODI: I think it's compelling evidence. It is not intrinsic evidence, that is true, your Honor, other than it is the testimony or at least the words in open court of an inventor of the patent-in-suit who presumably knows what the invention is about.

Let me then turn to slide 34, Mr. Skrzypek.

To your Honor's question about where does it say this
in the patent, there are a couple of places. The '226 patent
at column 4, lines 12 to 18 makes clear that what the system is
doing is positioning cameras in place before image capture.
Same thing with column 6, lines 26 through 32. The array
doesn't need to move or cameras don't need to move in order to
form the array. The array is a set of cameras which are
strategically placed through the environment. I think this is
where Judge Woods, he heard the arguments of both parties, he
heard expert testimony from both sides, and his conclusion,
which we believe is correct if we go to slide 32,
Mr. Skrzypek if you look at every single embodiment of these
patents, every single one of the figures, what Judge Woods
concluded correctly is that all the multiple of configurations
contemplated in the patents, however, the cameras in each array
are always fixed in geometric relation to each other. Why is
that? The fixed geometric relationship between the cameras
within an array is crucial to permitting users to navigate the
environment captured by that array. Indeed, as the
specification describes and as Judge Woods explained in his
order, the cameras are carefully deployed to create the
necessary fields of view. You can't carefully deploy cameras
in an environment if you don't even know the relationship
between them in advance, right? That's the sort of doing it
ad hoc is the opposite of that. So the conclusion was,

correctly, a POSITA would understand that cameras that did not have fixed fields of view relative to the other cameras in the array would be contrary to the teachings of the '325 and '226 patents.

THE COURT: So I alluded to this before. The thing that gives me pause here is the case law that says that you shouldn't use embodiments to create limitations that aren't otherwise in the patent, and even if there's only one embodiment, to me that suggests even though every single embodiment has fixed cameras, that that doesn't necessarily mean it has to be that way. So are there cases in the federal circuit, for example, where the court said: Oh, yes, it has to mean that because every single embodiment in the patent shows that?

MR. MODI: There are cases like that, your Honor. I believe we've cited them in the papers. I think the Eon case that I mentioned earlier is one of those. I don't have others directly on hand. I am certainly — I believe I can find one in the context of this hearing, but there are absolutely cases that say if you describe your invention consistently with respect to certain features, including an array embodiment, it is proper, indeed, the right approach, to construe the claims that way. Because, again, we don't construe the claims in a vacuum, right? The idea here is to capture what the actual invention was. So if every single embodiment, like in this

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case, if every single embodiment that is described has cameras that are fixed in relation to one another in order to permit the navigation that Kewazinga says is the crux of this invention, then, yes, absolutely it is proper to have that be part of the construction.

There's one other point I want to make on this, and it goes to this idea of whether the relationship has to be predetermined. I think, as I was saying before, if that's not the case, if any relationship can be determined after the fact between cameras, then the phrase loses all meaning, right? order of arrangement doesn't -- you can always sort of find a relationship after the fact between cameras. You've now lost the thrust and the meaning and, frankly, deviated from the ordinary meaning of what it means to be an array. You've got to have a comparison point. There's got to be a regular order In fact, I think it was in one of the slides that arrangement. Mr. DiBernardo showed. I think it was slide 43. It had this notion of if you had a car, I think in the example, go from point A to point B to point C, that's, in their contention, one array. And then on the bottom of the slide, point A, point B, but then the car swerves, and they argue that's not an array for the purposes of this hearing. I think what we're going to see is they're going to argue that, OK, the car turned, but you still know the distances between B and C, so that's also an array. You haven't changed any geometric relationship between

the cameras. You can make that argument for any collection of cameras.

Does that make sense, your Honor? It can't be something that's sort of after the fact. The whole point of this patent was to come up with an arrangement of cameras before the fact that could effectively allow a user to navigate the environment.

THE COURT: Well, except that it talks -- I don't have the exact words in front of me, but it's something about like "along a line of travel" when they're talking about independent users, and user one can go along this line of travel. So as long as you're sticking to this path or this line of travel in the environment and you're capturing images along the way, along that path, why do you need to know in advance whether your second image in your second camera is two feet or three feet?

MR. MODI: Well, again, because if the entire point of this invention, as the patents themselves say and as

Mr. DiBernardo articulated this morning, is to allow

navigation, in fact, seamless navigation in the environment,

it's not enough to just after the fact say, well, gosh, these

two images are a mile away from each other, as an example,

right? To actually do what the patents are trying to get at

here, there's got to be some determination before the fact of

what the order of the cameras is going to be. That's inherent

1 | in an array.

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2 THE COURT: OK.

MR. MODI: I do want to -- let me talk a little bit about Figure 11. I know this is a point of contention in the papers.

Mr. Skrzypek, can we go to slide 37, please.

Your Honor, there is -- as I said at the outset, there is not a single description or embodiment anywhere in these patents about a single array that is created over time. It is not what Figure 11 says. And on slide 37, I have indicated what Google's evidence is on this figure and what Kewazinga's evidence is. Google's evidence is, in addition to the Microsoft Court finding this exact point, the intrinsic evidence. It's the words of the patents and the claims themselves. Kewazinga's is almost exclusively based on Dr. Lubin's testimony. As your Honor pointed out, the whole interpretation of that figure relies on this sub-array point which simply doesn't exist in the patents. And then I will come back to what Kewazinga has now argued, which is there's this little arrow 10 in the corner that should be the whole basis on which the Court finds that this depicts a single array.

So with respect to what the *Microsoft* Court found -next slide, please -- again, I want to emphasize this exact
argument was raised by Kewazinga to Judge Woods. The Court

actually asked in the *Microsoft* case: "Can I ask, is there any one example of moving cameras within an array as opposed to moving an array?" And the response was: Sure, Figure 11. And the description is the same one we've heard today. How does that happen? By moving cameras. The ring is in the center first, images are stored, then it's moved away, then it's moved away. I actually think it might have been the same slide that we saw this morning.

THE COURT: And I thought I saw somewhere around the description of Figure 11 they talk about moving one of the arrays away so that it doesn't impede the view of another array.

MR. MODI: That's exactly right, your Honor. You have an array, a cylinder array that you place at a certain distance from the object. That array has cameras on it at fixed points. You capture the images; you take it away. You bring in a new, different array, not a sub-array, a different array, 12-1 or 12-2. That one has cameras around it, and you then take the pictures from that separate array and then you remove it, and you can do that a couple of times. But now what you've got is a plurality of removable arrays and you can navigate between the different arrays. What the patent does not say is this is all one array. The patent —

THE COURT: What about that little 10 in the corner?

MR. MODI: OK. Let's talk about that 10.

Mr. Skrzypek, can we go to slide 52, please.

So the entirety of the argument is a description of Figure 11 which calls back to Figure 1 and this little initial 10. By the way, actually, I believe all the embodiments do that. So this isn't like something that they were just making sure to try to reference it. I believe that's actually just sort of boilerplate language that is included in most if not at all.

What does Figure 1 say? What does the spec say about Figure 1 and what does it say about 10? What it actually says is the array 10 employs a series of cameras, and so as a result, the entire array does not need to be moved. So this is talking about the opposite of moving an array; it's talking about not moving an array. And I think what that shows is, as Google argues, what 11 is showing is you've got, let's say, an inner array that is situated in the environment, takes images, comes out, right? Doesn't move out and expand or anything like that. It comes out; you bring in a new array. And it's these plurality of removable arrays that constitutes this embodiment of multiple arrays. In other words, these aren't creating an array over time. These are multiple arrays that are being used one after the other. Again, that's just clear from the text of how Figure 11 is described in the patents.

Mr. Skrzypek, if we could go to slide 42, please.

I mean, this is the clearest example, I think, of them

all. Figure 11 shows up in the portion of the specification called "Multiple Arrays." It would have been very easy — this is — I actually think Mr. DiBernardo was the drafting attorney on this patent. I mean, if they wanted to, they certainly could have written the words along the lines of "Figure 11 describes a single array that is created over time." That's not what the patent says at all. The patent says it's multiple arrays. As will be understood by those skilled in the art, the arrays, plural, described with reference to Figure 11 may be used with any server or storage, etc. These are multiple different arrays, not a single array that is created over time. There isn't a single example of that anywhere in these patents.

With that, your Honor, I will reserve any -- I'll reserve some time for any points that Kewazinga has in rebuttal.

THE COURT: OK. Mr. DiBernardo, are we going to talk about mosaicing, or are you going to do a rebuttal at this point?

MR. DiBERNARDO: I will do a rebuttal on the array point, your Honor.

THE COURT: OK.

MR. DiBERNARDO: OK. Let me start with the import of that 10. The term at issue is "array of cameras," and array of cameras is identified by 10. It's identified that way throughout for consistency. And array of cameras 10, putting

aside the use of the term "sub-array," it's clear from both Figure 1 and Figure 11 that the array of cameras, the term at issue, comprises multiple other arrays. In Figure 1, array of cameras 10 comprises multiple rail arrays. In Figure 11, array of cameras 10 comprises multiple rings, cylinders, 12-1 through 12-n.

For Google to say that there's absolutely no disclosure of a single array created over time completely mischaracterizes the teaching of Figure 11. The array 10 of 11, the collection of all of those cylinders, is created over time with one cylinder being put in place and removed and the next one being put in place and removed, and so on. That is absolutely not the case that there is no disclosure of an array created over time. Figure 11 is absolutely that.

Notably, that important Figure 11 and the label 10, well, in the brief Google doesn't dispute the explanation of how Figure 11 operates, and they seem to agree now that rings, cylinders, are put into place and removed, images are captured, and that all, the whole collection of imagery, is available to be navigated. That whole collection of imagery from the multiple cylinder arrays, that's array of cameras 10. Of course, they don't provide any explanations for that label 10.

If I could jump ahead, they also -- apologies for the scrolling, your Honor.

THE COURT: That's all right.

MR. DiBERNARDO: Google says that we haven't -basically, they say we said there doesn't have to be any
relationship among the images or the cameras. That's not the
case. The patents describe navigation based on a known
relationship and a relative relationship. For example, in an
array as shown, knowing that camera X1 is to the right of X0
and X2 is to the right of X1, X3 to the right of X2, and being
able to navigate based on user inputs from one camera image to
another image to another, the fixed in relationship goes to
that type of navigation. Again, that's also supported by
Figure 5 in all of the patents which show a user navigates
based on relative position. If the user wants to move to the
right, they don't need to know the precise location of the
camera, of the output. They simply indicate in terms of the
input.

This is the relationship that the *Microsoft* Court was focused on in "fixed in relation." It was these known relationships between the cameras. The fixed geometric relationship is what created the path through which the array of cameras can be defined. And, again, in the embodiment of Figure 11 with — once all of the images are captured from those moving arrays, the relationship of the images within the array, the collection of all of the captured imagery, all of the cylinders, the relationship does not change. Navigation happens as described, by sequencing through the captured

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images. Again, we have not said there doesn't have to be any relationship in the context of the patents. It just doesn't have to be predefined. And as pointed out earlier, some of the claims do include other language. It's not part of the array limitation, it's other language in the claim, for example, that recite progressively different perspectives of the environment. Cameras, the images, can have relative relationship among them, and that permits navigation as described in the patents, including at Figure 5.

One other point, your Honor. I went through the specific language in the Microsoft Court's opinion explaining why this issue was not being addressed by Judge Woods. There -- and perhaps take a step back. There, Microsoft's proposed construction was a set of multiple cameras each fixed to capture images at a different location to provide a view through the environment, and it goes on. But the important point is there the issue was not does there need to be a known relationship between cameras? There, Microsoft is arguing each had to be fixed to capture images at a different location. In other words, each camera had to be stationary, and so the quotes that Google has showed you regarding the fixed issue is a different issue. The issue was do the cameras have to be stationary? Judge Woods, as I went through, did not address the issue of whether or not the array of cameras 10 in Figure 11 was the collection of all the imagery collected by the

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multiple cylindrical arrays. That absolutely was not before him. He did not address that in the rationale that we went through earlier, your Honor.

I guess just one other point since it was raised. They made a point that Figure 11 was not in the '226. The '226 patent and the '325 patent are related. They are in the same family. The '325 claims priority to the '226 patent. The case that Google cites, the Goldenberg case, is completely different, and in fact emphatic makes the point that Kewazinga makes. When two patents like the '226 and '325 are formally related, are in the same family, you can use one to interpret terms in the patents. That's the Contech case that we cite. The later continuation in part, which is the case we have here for the '325, was used to construe terms in the earlier parent application. In fact, the Goldenberg case that Google cites emphatically makes the point that we made. It says the law makes distinct line between patents that have a familial relationship where you can use continuations in later patents, such as the '226 and '325 Kewazinga patents, and those that do not. That's exactly the point.

Furthermore, in the *Goldenberg* case, the patentees argued that the two patents at issue, unrelated patents, cover different inventions. Here, that's not the case. The '325 patent is based on and incorporates by reference the '226 patent, and the Figure 11 discussion is based on Figure 1. It

carries forward this notion that the array of cameras 10 can comprise multiple smaller arrays and builds on the discussion in the '226 patent that cameras can be secured to movable frames and cameras can indeed move.

With that, your Honor, I'll reserve my time for the next issue, unless you have any questions.

THE COURT: I don't at this point. Thank you.

MR. MODI: Your Honor, may I respond briefly?

THE COURT: Yes. Yes, of course.

MR. MODI: Thank you.

Just a couple of points based on the points that
Kewazinga's counsel raised. From the papers and now in this
argument, it is clear that Kewazinga recognizes that, at a
minimum, for the array of cameras limitation, there must be
some known relationship between the cameras. What Kewazinga is
arguing, though, is that that relationship can be determined
after image capture. And that is the point that, if you just
think about it, makes no sense; in fact, completely eliminates
any requirement from this claim whatsoever. You can always
determine a relationship between any two things after the fact,
right? It's before the fact that is critical here. So it is
not a concession at all -- I mean, it is not an argument at all
to say: Yeah, there can be a known relationship, but, you
know, it doesn't have to be. It can be after the fact. That's
not imposing any limitation on the claim term whatsoever.

That's not what the patents contemplate.

Secondly, with respect to this idea that whether the collection of cameras in Figure 11 constitutes a single array, the argument was that that specific issue was not raised before Judge Woods. I just want to make this very clear. It was absolutely, positively raised and rejected.

Mr. Skrzypek, if we can pull up slide 39, please.

The Court in *Microsoft* asks the direct question: "In each of the cylinders described here, as identified with a separate designator, 12-1 through 12-n, does that say anything about whether or not each of these rings constitutes a separate array of cameras as opposed to the collection constituting an array of cameras?" And the response was: "The collection 12" -- I think 10 was intended there -- "the collection can mean the array."

It's the exact same argument, and so the only twist that I've heard today is reference to the collection of images being the array, the single array. But as your Honor noted, we're talking about a collection of cameras. We're not talking about images. So this precise argument was raised, including with respect to the little numeral. And if we look at slide 41, I know your Honor is already familiar with Judge Woods' opinion, but the Microsoft Court specifically rejected this argument.

Unless your Honor has any questions, I'll reserve

further time for the next term.

THE COURT: Thank you. Shall we move to the second issue?

MR. DiBERNARDO: Thank you, your Honor.

Just one point on that. Counsel quoted from the oral argument that one question out of context regarding the collection, and of course that did not, as we saw, did not make it into the *Microsoft* opinion. It was not addressed by the Court, certainly not discussed in the opinion and the language that we saw in the opinion.

With that, I will go to the term "mosaic." One moment while I scroll ahead. Thank you, your Honor. OK.

THE COURT: Can I ask a question about mosaicing. It looked to me, just by looking at the two constructions, like there were perhaps two issues: One was the issue of seamlessness, and the other issue was whether the camera has to be the only source of the images that are being fitted together. But I wasn't entirely clear that those were the two issues and that there were just two.

MR. DiBERNARDO: I think that's fair, your Honor, and this slide highlights the issues. Essentially, the base of each of the proposed constructions that mosaicing be assembled and include an alignment process and a composition process there's agreement on, and that is consistent with the *Microsoft* Court's ruling. Google adds two limitations that are not part

of the ordinary and understood meaning of the term "mosaicing" and that are actually contradicted by the intrinsic evidence, and that is requiring that it be of camera outputs, as we've highlighted, and this almost statement of purpose that they add, "to achieve a seamless combination of the camera outputs."

Specifically to your point of whether or not it needs to be seamless, there's no disagreement that the ordinary meaning and understanding of a mosaic is that it need not be seamless, and they actually can't have seams. That's consistent with Judge Woods' rationale and holding in *Microsoft* and the intrinsic evidence here. We'll get into that in a little more detail.

So here again there's no dispute that the ordinary meaning of mosaicing is not limited to camera outputs. Google tries to read in that it's limited to camera outputs. It's not. The intrinsic evidence explicitly describes mosaicing, what's referred to as additional source outputs, and those are not camera outputs. In the '325 patent -- and Google makes an argument that additional source output is not disclosed there, but it absolutely is, including in claims 2 and 3 -- mosaicing, the camera output and the additional source output, and that can include computer graphic imagery, virtual world imagery, and other images. It's not limited to camera outputs.

Mosaicing in the context of these patents is not limited to mosaicing camera outputs.

The same with the '234 patent. Again, Google argues that the '234 should be disregarded, but, again, it does address this issue. It says: Additional source output, alone or in combination with camera output, for example, can be represented by mosaicing, mixing, layering, etc. Mosaicing in the patents includes mosaicing not just camera outputs but other imagery.

Some claims do recite mosaicing outputs of cameras. And according to the *Phillips* case, to require that in the definition of mosaicing is improper. It renders that claim language redundant. Where the claim says mosaic output of cameras, that's what's been mosaiced, but where it's silent, that's not required by the term "mosaicing."

Now, on this issue of seamlessness, again, there's no dispute that the ordinary meaning of mosaicing does not require additional processing to make the mosaic seamless. The mosaic can have seams. It exists whether a mosaic is seamless or not and whether or not attempts are made to make the mosaic seamless. Dr. Lubin explained this and Google offered no counter-testimony, and the intrinsic evidence directly supports this. The Burt patent, which is incorporated by reference into the '325 and '234 patents, says: After processing, the individual images are combined to form a mosaic. The mosaic is formed. Additional image processing is performed on the mosaic to ensure that the seams between the images are invisible.

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Removing seams is after a mosaic is formed. It is not required by mosaic, and the *Microsoft* Court, quoting that language, found just that. The Burt patent makes clear that a mosaic can be formed even if that mosaic is not perfectly seamless.

Now, with that ordinary meaning, the patents do not disavow the full scope. Here, Google really conflates two They say, well, the patent describes smooth motion, seamless navigation. That does not require mosaics to be seamless. The asserted patents criticized prior art where changing the camera views resulted in a discontinuous image, basically jumping from one image to another image, a jarring view even as Google characterizes it. That was what was criticized. That overall navigation of avoiding that discontinous image does not require mosaics to be seamless. Ιt has nothing specifically to do with mosaicing. One way we know is that that same language, "avoiding the discontinuous and jarring image," is in the '226 patent, and the '226 patent makes no mention of mosaicing. It's talking about overall smooth navigation, and Google conflates these two issues, on the one hand, trying to smooth navigation, and on the other hand, requiring a mosaic to be seamless.

Seamless navigation in the patents is about providing users with smooth transition during navigation, not whether a mosaic may have a seam in it. And perhaps to put this in better context for your Honor, what does it mean for a mosaic

to have a seam? A seam could be, for example, different exposures for images. One image has bright exposure. Another image being mosaiced may be taken with clouds, so it's darker. Those images can be aligned in the composition process to form a mosaic, but there may be some differences in the exposure where a seam could be visible to a user. That doesn't go to whether or not there's smooth navigation. There is still smooth navigation, namely, no jumping or jarring effect from discontinuous images despite that theme being present.

THE COURT: I'm just going to stop you for a second.

Mr. Street tells me you have seven minutes. I'm not sure

whether that's the same time you had, but I wanted to let you

know.

MR. DiBERNARDO: Thank you, your Honor.

Here I should — so, your Honor, Google asserts that Kewazinga's proposed construction would lead to a nonsensical result because it would permit anything to be a mosaic. And in support Google contends that Dr. Lubin testified that images can be mosaiced even if they have no relationship. That is absolutely a mischaracterization of Dr. Lubin's testimony. He never said it didn't have to be any relationship between images between mosaiced.

First, it's not a nonsensical result because even the agreed portions of the construction require there to be an

alignment process and a composition process. Moreover, other claim language, as we talked earlier about, requires that there be progressively different perspectives of the environment.

Again, describing the images that are being mosaiced or that may be mosaiced. And then in terms of Dr. Lubin's explanation, it's clear he says there is no requirement that there be any particular relationship. As long as you have a known relationship between those views, the views can be mosaiced. So there has to be a relationship, there has to be an alignment process, and a composition process. There's no nonsensical result.

Just, your Honor, I guess to take a step back regarding Google's attempt to add in this notion of to achieve seamless combination, it really seems that this is absolutely unhelpful to a jury. It raises issues of intent and whether or not the creator of the system was intending to achieve a seamless combination. It also raises issues that are inconsistent with the accepted ordinary meaning that a mosaic does not have to be seamless. There is an alignment process and a composition process. That's when a mosaic is formed. That's the basis on which infringement should be found. That a mosaic may have seams, like differences in exposure, does not — it still fulfills the purpose of the invention of smoothing navigation. Requiring a seamless mosaic has nothing to do with smooth navigation.

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Highlighting the ambiguity of this term and this phrase that they seek to add, at page 22 of Google's brief, they mention that the best process for achieving a mosaic should be employed. Does that mean that to achieve a seamless combination, the best process has to be employed? That could differ with different applications. The patents talk about different techniques for doing a mosaic: merging, fusing, filtering. Does that mean one of those processes could be enough, as is thought and understood in the art, or this notion of using a best process, do all of those have to be used? phrase is really unhelpful to a jury, it's ambiguous, and it brings in this notion of intent. It also begs the question of whether or not the additional processing that Judge Woods focused on, whether that, which is agreed not part of mosaicing, whether such additional processing is now somehow required to achieve this best process for obtaining a mosaic.

With that, your Honor, I'll save any remaining time.

THE COURT: OK.

MR. MODI: Mr. Skrzypek, can we go to slide 55 of the Google presentation, please.

Your Honor, there's really one principal dispute here, which is the last phrase "to achieve a seamless combination of the camera outputs," and the second one sort of flows from the first. So I'll take it in that order, and I'll show you what I mean. But what we're trying to do here with this construction

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is provide some additional clarity on what a composition process is. A composition process doesn't really have a clear meaning or any meaning, and we respectfully submit that additional clarity about what that process is will actually be helpful to the jury and enable the jury to perform its duty of deciding whether there is infringement or not infringement.

Where does the language come from? The language is a direct -- it comes directly from the specification and specifically the patent that Kewazinga incorporated by reference for this concept of mosaicing. And I'll go through that in a second, too. But for context, one additional point I want to make here is a lot of the presentation that Kewazinga just delivered was focused on the noun "mosaic" and whether the noun "mosaic" had to be perfectly seamless. That's not the issue here. The issue here is the verb "mosaicing." verb, this action, is something that's recited in a number of the claims. And in the Microsoft opinion, the Court actually had a very apt analogy to the concept of proofreading. The act of proofreading is looking through something and trying to pick out and correct any typos, for example, in a brief. Now, is something that has been proofread fully perfect and absent of typos? Well, hopefully. That would be a good proofreading process, but that doesn't always happen. I've certainly written briefs that I thought I've proofread and later found a typo or two, but the verb, the act of proofreading, requires

some effort to remove errors, and it's sort of a similar thing here. The act of mosaicing, as described in these patents, includes, requires, some effort to achieve a seamless combination of the outputs.

Next slide, please.

And just building on the point of why this is going to be helpful, the *Microsoft* Court actually left open the possibility of construing or deciding this very issue. What the *Microsoft* Court concluded was if there was a dispute about whether there needs to be some image processing aimed at reducing seams in mosaiced images, in other words, mosaicing, the Court will consider supplemental briefing as to the meaning of the term "composition process." So all Google's proposal is is an additional clarification on composition process.

Now, where does this construction come from? Slide 58, please.

The '325 patent describes mosaicing, the term at issue here, by incorporating by reference the '032 patent to Peter Burt. The mosaicing is something that comes from the Burt patent.

Next slide, please.

What the Burt patent describes, as shown on slide 59, is that mosaicing is a two-part process, the second part having a couple of subparts. So there is an alignment process that's indicated in blue with 300 and a composition process, 303.

This the p	parties are	in agreeme	nt on.	There 1	s an al	ignment	
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does the E	Burt patent	say about	what the	compos	ition p	rocess	is?
l	Next slide,	please.					

So according to the Burt patent, once that top alignment process is complete, the invention utilizes a mosaic composition process to construct or update a mosaic. That composition process within itself contains two processes: a selection process and a combination process. Now --

THE COURT: Can I just ask, what's an alignment process?

MR. MODI: An alignment process is aligning two of the constituent inputs with one another. And I think the patents describe it, and I don't actually have the precise description either in my slides or on the top of my head, but I think it is largely in line with what an ordinary meaning of alignment is to mean, to try to line up certain things in a certain way.

THE COURT: Then how is that different from the mosaicing composition process?

MR. MODI: Well, the mosaic composition process is —
the alignment process is part of the mosaic composition
process. So mosaic composition process, or mosaicing, includes
both alignment and then this composition process. I'm sorry.
I think I misunderstood your question.

Composition is something different than alignment, and actually this is -- your Honor's question is exactly right.

Why is that different? How is that different? What even is a composition process? That's exactly why additional clarification around that makes sense. What the composition process is, according to the Burt patent, is a selection and a combination. The selection process -- this is on slide 60 -- automatically selects images for incorporation into the mosaic and may include masking and cropping functions. OK. So there's some selection of whatever the inputs are into this composition process.

Then there is a separate combination process. The combination process applies various imaging processing techniques, such as merging, fusing, filtering, image enhancement, and the like, to achieve a seamless combination of the images. That is the point and the results of the combination process, to achieve a seamless combination of the images. Does it have to be done in any particular way? No. As the patent says, it can be merging, fusing, filtering, and we are not proposing in the construction that it has to be done in any one of those ways. But what is clear from the Burt patent is that the combination process achieves a seamless combination of the images. That's what it is, and it would be helpful for the jury to understand that's what it is. Without that context, it's really unclear how a jury is supposed to

evaluate whether or not the combination process has been met or not. The combination process could mean anything. The patents tell us what it means.

Next slide, please.

Then now coming back to the Kewazinga patents, the '325 patent includes exactly this same disclosure. The combination process applies these different techniques, or one of these different techniques, to achieve a seamless combination of the outputs. So the patent tells us what it does, and it is that description, and just that description, which will be helpful for a jury and we believe should therefore be in the construction.

Then with respect to the sort of secondary point, your Honor -- I'm sorry, Mr. Skrzypek, can we go to slide 64, please.

There is the argument in the papers and Kewazinga's presentation just now that what the Burt patent says is that any attempts to achieve seamlessness is some separate step from the mosaicing. That's the argument that's be presented. The problem is the portion of the Burt patent specification that Kewazinga relies on is talking about the prior art. That's talking about how mosaicing was done before the Burt patent. What the Burt patent describes and what is incorporated into the Kewazinga patents is a mosaicing that involves this combination process to achieve a seamless output of the images.

Then slide 65, Mr. Skrzypek.

Because we believe it would be helpful to the jury and clearer to articulate what is meant by the composition process, we would propose adding that last portion of the construction in. And as a grammatical matter, this is why we had proposed that the second line in Google's construction there on slide 65 include camera outputs because what's clear is what's being combined, as described in the Burt patents, is the camera outputs. And if you just think grammatically about how this construction works, it would be confusing to have images in the first part and then a combination of the camera outputs in the second.

So that's the basis of that change. It flows from the much more principal dispute, which is what is a composition process, and it is consistent with how the claims are recited. We have on the bottom of slide 65 this claim 1 of the '325 patent which makes clear that what is — the sequentially mosaicing is performed on the selected outputs of cameras. So, yes, it's in the claim. I agree with that. It is really more of an ensuring grammatic consistency within the construction type of issue.

Unless your Honor has any questions, I will reserve the remainder of my time for any rebuttal.

THE COURT: OK. Mr. Street, how much time does the plaintiff have left, if any?

THE DEPUTY CLERK: Kewazinga has two minutes left.

THE COURT: OK.

MR. DiBERNARDO: Thank you, your Honor.

Real quickly, then, to say that this added language "to achieve seamless combination" is to explain the composition process is disingenuous. If that were the case, there would be experts explaining what that meant. A composition is to form a single image with at least part of the two images. It's that process that helps smooth navigation. That's the process that's understood by the alignment and composition process.

Mosaicing, your Honor, predated the Burt patent. What Google is trying to do is to limit mosaicing to just what's a preferred embodiment in Burt, and that is not the case. That is not the ordinary meaning. That is not the process of claim construction. There is no basis to limit mosaicing to a preferred embodiment in Burt, which is also just one embodiment in the Kewazinga patent. The description in Burt is an example of an example. It's not limited to the mosaicing in the Burt patent. It's just one example.

Taking a step back, it seems by focusing on this combination process, Google is in essence going back to what the *Microsoft* Court rejected. They're saying that the combination process has to achieve a seamless image. That was rejected by the *Microsoft* Court. That is not part of the understood meaning of what a mosaic is. A mosaic can have

seams. The intrinsic evidence says that, and *Microsoft* rejected that very argument by Microsoft. They've come full circle, and this extra language, "to achieve seamless combination," should be rejected as inconsistent with that ordinary meaning, your Honor.

THE COURT: OK. Give me just a minute.

MR. MODI: I'm sorry, your Honor. May I add?

THE COURT: Yes. Mr. Modi, I guess I'm still not -you said it was just a matter of grammar, but it still sounds
like in your proposed construction you're including only camera
outputs and you're not including other sources of imagery, and
in fact you seem to be excluding it. Is that the case, and if
so, why should we do that?

MR. MODI: That's not the intent, your Honor, and if it's more palatable to the Court, we could keep that plurality of images portion of the *Microsoft* construction intact. It is Google's position that additional clarification on what the composition process entails or even means, for that matter, is important, and so we would respectfully suggest that that be incorporated into the construction because that's exactly how the patents describe what that is. And to the extent it creates any sort of grammatical inconsistency within the construction, I'm sure, to the extent there's a dispute about that later in the case, maybe that could be resolved at that time.

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THE COURT: OK. I didn't mean to interrupt you. Was there anything else you wanted to address?

MR. MODI: Oh. So, no, I appreciate that, your Honor. Thank you.

Again, we're not talking about mosaic. The Microsoft opinion had a very long description of the notion that a mosaic does not need to be perfectly seamless because it's not something you can sort of determine before the fact or after the fact. We're talking about the verb, and the verb is defined in the Burt patent. The notion that Kewazinga was just merely -- first of all, the notion that there's an ordinary meaning to mosaicing I would dispute. It's not certainly a phrase that I don't think is used in any regularity in these patents. In fact, Kewazinga had to go to another patent to really describe what the concept is. And what that patent says is, OK, there's mosaicing as was done in the prior art, but here's what mosaicing means here. So I think the disclosure that is actually in these patents is the mosaicing that is described in the Burt patent. It has that flowchart. parties don't dispute that, and it's really just about what do we do with this composition process?

Unless your Honor has any questions on mosaicing, I just didn't want -- your Honor had asked for a couple of cases on whether it's appropriate to construe a claim when the specification consistently describes the invention in a certain

way. There are a couple of cases. One is Medicines

Co. v. Mylan, 853 F.3d 1296. Another is Scimed v. Advanced

Cardiovascular, 242 F.3d 1337. And of course, Phillips and
then the number of cases that we cited in our papers as well
stand for this position that you don't look at claims in a

vacuum. The Eon case is another. This is meant to be an
exercise in trying to figure out what the inventors actually
invented.

So unless your Honor has any further questions, that's all I have.

THE COURT: OK. Thank you very much.

Thank you to both of you, and you're sending copies of your PowerPoints to the chambers email address, right, both?

MR. DiBERNARDO: Yes, your Honor.

MR. MODI: Yes, your Honor.

THE COURT: That would be much appreciated. Thanks.

OK. Unless there's anything else, is there anything else we need to discuss? Sounds like no. We are --

MR. DiBERNARDO: One quick question, your Honor.

THE COURT: Yes.

MR. DiBERNARDO: Just housekeeping. Do you have a preferred form for the slides? In native PowerPoint or just a PDF? Both?

THE COURT: Why not both, because sometimes it's faster to read or faster to send if it's in one form versus

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               MR. DiBERNARDO: Will do.
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               THE COURT: Thank you.
               Thanks very much. We're adjourned.
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               MR. MODI: Thank you, your Honor.
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               MR. DiBERNARDO: Thank you.
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               (Adjourned)
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